# MASTER OF SCIENCE IN INFORMATION SYSTEMS AND OPERATIONS

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**MILITARY-MEDIA RELATIONSHIPS: IDENTIFYING AND MITIGATING MILITARY-MEDIA BIASES TO IMPROVE FUTURE MILITARY OPERATIONS**
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A noticeable civil-military gap has emerged in American society where the public does not fully understand the mission of the military, and the military does not understand the expectations and demands made by the public in a liberal democracy. Maintaining a good rapport with the media and not fostering a civil-military gap will allow the public to embrace "good news" stories that are introduced by the military, as well as accept the times when a negative story breaks the news. Cooperating with the media by allowing appropriate access to the military is vital to effective information operations.

This research identifies instances of failure in military-media relationships by reviewing the historical relationship between the media and the military in wartime, as well as two examples in the last 15 years in which the Navy has mishandled newsworthy events-the 1989 explosion aboard the *USS IOWA* and the 2001 collision between the submarine, *USS GREENEVILLE*, and the Japanese fishing trawler, *Ehime Maru*. The purpose of this project is to determine and ultimately to mitigate military bias against the media.

**KEYWORDS**: Military Media Relationships, Bias, *USS IOWA, USS GREENEVILLE*, Information Operations

**THE WIRELESS UBIQUITOUS SURVEILLANCE TESTBED**
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The thesis research examines the emergence of surveillance and biometrics technologies as a sensible baseline for building a ubiquitous surveillance testbed for the Naval Postgraduate School. This thesis also defines what ubiquitous surveillance is, employs biometric applications and technical strategies to build a working testbed, and addresses developmental issues surrounding the hypothesis for a ubiquitous surveillance testbed. Several evaluations of the testbed are conducted using different scenarios. Emerging biometric and surveillance technologies that can promote the maturation of the testbed into a premier ubiquitous habitat are reccomended.

**KEYWORDS**: Testbed, Surveillance, Biometrics Technologies, Ubiquitous Surveillance, Wireless LAN, Sensor Technologies

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## IMPROVING THE COMMAND AND CONTROL ORGANIZATION IN EXPEDITIONARY OPERATIONS

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The military is developing new doctrine, such as Ship-to-Objective-Maneuver (STOM), to take advantage of emerging technology. The problem is that new command and control organizations are not being developed to execute this new doctrine. The insistence that the tried and true Commander, Amphibious Task Force/Commander, Landing Force (CATF/CLF) organization or similar structure will do the job hinders the full effectiveness of this new doctrine.

STOM removes the need for massive build up ashore in an amphibious operation. Instead, using naval forces as a sea base, the assault force moves sufficient military strength directly to a point at which it can accomplish the mission. This allows the landing force commander to stay on board, thus negating the need for two commanders.

The Expeditionary Battle Staff (EBS) is a possible solution to this problem. A combination of the Amphibious Squadron and Marine Expeditionary Unit staffs, EBS has one commander. Using emerging C2 technology, the commander directs the assault from the sea. EBS is designed to have a commander from either the Navy or Marine Corps, with the staff providing the tactical expertise to support him in his mission.

**KEYWORDS:** Ship-to-Objective-Maneuver, Expeditionary Maneuver Warfare, Command and Control, C2, Sea Basing, Expeditionary Operations, Expeditionary Battle Staff

## VOICE RECOGNITION SYSTEMS: ASSESSMENT OF IMPLEMENTATION ABOARD U.S. NAVAL SHIPS

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Technological advances have had profound effects on the conduct of military operations in both peacetime and war. One advance that has had a great impact outside the military by reducing human intervention is Voice Recognition (VR) technology. This thesis will examine the implementation of a Voice Recognition System as a ship-driving device and as a means of decreasing the occurrence of mishaps while reducing the level of fatigue of watchstanders on the bridge. Chapter I will discuss the need for the United States Navy to investigate the implementation of a Voice Recognition System to help reduce the probability of mishaps occurring. Chapter II will explain voice recognition technology, how it works, and how the proposed system can be fielded aboard U.S. Navy ships. Chapter III will examine the opinions (on the implementation of a Voice Recognition System) of officers charged with the safe navigation of naval ships. Chapter IV will review the concerns of officers, and will justify the implementation by answering these concerns. The conclusion will iterate the advances in voice recognition, and why a Voice Recognition system should be implemented on the bridges of U.S. Navy ships.

**KEYWORDS**: Voice Recognition, Reduction in Manning, Wireless, Shiphandling, Ship's Control Console, Helm, Lee Helm